

Contents

Volume 105 1989

Zackson, S. L. and Steinberg, M. S. Axolotl pronephric duct cell migration is sensitive to phosphatidylinositol-specific phospholipase C	1
Wetts, R. and Fraser, S. E. Slow mixing of cells during <i>Xenopus</i> embryogenesis contributes to the consistency of the blastomere fate map	9
Schoenwolf, G. C. and Sheard, P. Shaping and bending of the avian neural plate as analysed with a fluorescent-histochemical marker	17
Gurdon, J. B. The localization of an inductive response	27
Ghyssen, A. and O'Kane, C. Neural enhancer-like elements as specific cell markers in <i>Drosophila</i>	35
Mitani, S. and Okamoto, H. Embryonic development of <i>Xenopus</i> studied in a cell culture system with tissue-specific monoclonal antibodies	53
Dent, J. A., Polson, A. G. and Klymkowsky, M. W. A whole-mount immunocytochemical analysis of the expression of the intermediate filament protein vimentin in <i>Xenopus</i>	61
Jeffery, W. R. Requirement of cell division for muscle actin expression in the primary muscle cell lineage of ascidian embryos	75
Fitch, J. M., Mentzer, A., Mayne, R. and Linsenmayer, T. F. Independent deposition of collagen types II and IX at epithelial-mesenchymal interfaces	85
Page, M. Changing patterns of cytokeratins and vimentin in the early chick embryo	97
Fukumoto, H., Matsui, Y. and Obinata, M. Mechanism of erythropoietin action on the erythroid progenitor cells induced from murine erythroleukemia cells (TSA8)	109
Paldi, A., Nagy, A., Markkula, M., Barna, I. and Dezso, L. Postnatal development of parthenogenetic -- fertilized mouse aggregation chimeras	115
Primmatt, D. R. N., Norris, W. E., Carlson, G. J., Keynes, R. J. and Stern, C. D. Periodic segmental anomalies induced by heat shock in the chick embryo are associated with the cell cycle	119
Wilkinson, D. G., Bhatt, S. and McMahon, A. P. Expression pattern of the FGF-related proto-oncogene <i>int-2</i> suggests multiple roles in fetal development	131
Kaufman, M. H., Lee, K. K. H. and Speirs, S. Influence of diandric and digynic triploid genotypes on early mouse embryogenesis	137
Slack, J. M. W. and Isaacs, H. V. Presence of basic fibroblast growth factor in the early <i>Xenopus</i> embryo	147
Wilson, P. A., Oster, G. and Keller, R. Cell rearrangement and segmentation in <i>Xenopus</i> : direct observation of cultured explants	155
Mahaffey, J. W., Diederich, R. J. and Kaufman, T. C. Novel patterns of homeotic protein accumulation in the head of the <i>Drosophila</i> embryo	167
Niswander, L., Yee, D., Rinchik, E. M., Russell, L. B. and Magnuson, T. The albino-deletion complex in the mouse defines genes necessary for development of embryonic and extraembryonic ectoderm	175
ESSAY IN DEVELOPMENT Mattaj, I. W. and Hamm, J. Regulated splicing in early development and stage-specific U snRNPs	183
CONTRIBUTED PAPERS Iftode, F., Cohen, J., Ruiz, F., Rueda, A. T., Chen-Shan, L., Adoutte, A. and Beisson, J. Development of surface pattern during division in <i>Paramecium</i> . I. Mapping of duplication and	

Contents

reorganization of cortical cytoskeletal structures in the wild type	191	Talevi, R. Polyspermic eggs in the anuran <i>Discoglossus pictus</i> develop normally	343
Davis, R. E. and King, M. L. The developmental expression of the heat-shock responses in <i>Xenopus laevis</i>	213	Shi, D.-L., Darribère, T., Johnson, K. E. and Boucaut, J.-C. Initiation of mesodermal cell migration and spreading relative to gastrulation in the urodele amphibian <i>Pleurodeles waltl</i>	351
Barcellos-Hoff, M. H., Aggeler, J., Ram, T. G. and Bissell, M. J. Functional differentiation and alveolar morphogenesis of primary mammary cultures on reconstituted basement membrane	223	Röber, R.-A., Weber, K. and Osborn, M. Differential timing of nuclear lamin A/C expression in the various organs of the mouse embryo and the young animal: a developmental study	365
Sardet, C., Speksnijder, J., Inoue, S. and Jaffe, L. Fertilization and ooplasmic movements in the ascidian egg	237	Bennett, D. C., Cooper, P. J., Dexter, T. J., Devlin, L. M., Heasman, J. and Nester, B. Cloned mouse melanocyte lines carrying the germline mutations albino and brown: complementation in culture	379
Smith-Thomas, L. C. and Fawcett, J. W. Expression of Schwann cell markers by mammalian neural crest cells <i>in vitro</i>	251	Wolswijk, G. and Noble, M. Identification of an adult-specific glial progenitor cell	387
Hirai, Y., Nose, A., Kobayashi, S. and Takeichi, M. Expression and role of E- and P-cadherin adhesion molecules in embryonic histogenesis. I. Lung epithelial morphogenesis	263	Van Lookeren Campagne, M. M., Aerts, R. J., Spek, W., Firtel, R. A. and Schaap, P. Cyclic-AMP-induced elevation of intracellular pH precedes, but does not mediate, the induction of prespore differentiation in <i>Dictyostelium discoideum</i>	401
Hirai, Y., Nose, A., Kobayashi, S. and Takeichi, M. Expression and role of E- and P-cadherin adhesion molecules in embryonic histogenesis. II. Skin morphogenesis	271	Nisson, P. E., Dike, L. E. and Crain, W. R. Three <i>Strongylocentrotus purpuratus</i> actin genes show correct cell-specific expression in hybrid embryos of <i>S. purpuratus</i> and <i>Lytechinus pictus</i>	407
Herrman, H., Fouquet, B. and Franke, W. W. Expression of intermediate filament proteins during development of <i>Xenopus laevis</i> . I. cDNA clones encoding different forms of vimentin	279	Lambert, C. C. Ascidian eggs release glycosidase activity which aids in the block against polyspermy	415
Herrman, H., Fouquet, B. and Franke, W. W. Expression of intermediate filament proteins during development of <i>Xenopus laevis</i> . II. Identification and molecular characterization of desmin	299	ESSAY IN DEVELOPMENT Davidson, E. H. Lineage-specific gene expression and the regulative capacities of the sea urchin embryo: a proposed mechanism	421
Müller, W. A. Diacylglycerol-induced multihead formation in <i>Hydra</i>	309	CONTRIBUTED PAPERS Nelsen, E. M., Frankel, J. and Jenkins, L. M. Non-genic inheritance of cellular handedness	447
Tesařík, J. Involvement of oocyte-coded message in cell differentiation control of early human embryos	317	Nelsen, E. M. and Frankel, J. Maintenance and regulation of cellular handedness in <i>Tetrahymena</i>	457
McNally, J. G. and Cox, E. C. Spots and stripes: the patterning spectrum in the cellular slime mould <i>Polysphondylium pallidum</i>	323		
Smith, H. Pattern regulation during the development of the ventral abdomen in the flesh fly <i>Sarcophaga agryostoma</i>	335		

Pardanaud, L., Yassine, F. and Dieterlen-Lievre, F. Relationship between vasculogenesis, angiogenesis and haemopoiesis during avian ontogeny	473	Karr, T. L., Weir, M. P., Ali, Z. and Kornberg, T. Patterns of <i>engrailed</i> protein in early <i>Drosophila</i> embryos	605
Sadaghiani, B. and Vielkind, J. R. Neural crest development in <i>Xiphophorus</i> fishes: scanning electron and light microscopic studies	487	Kaur, S., Key, B., Stock, J., McNeish, J. D., Akeson, R. and Potter, S. S. Targeted ablation of α -crystallin-synthesizing cells produces lens-deficient eyes in transgenic mice	613
Letourneau, P. C. and Shattuck, T. A. Distribution and possible interactions of actin-associated proteins and cell adhesion molecules of nerve growth cones	505	Booker, R. B. and Truman, J. W. <i>Octopod</i> , a homeotic mutation of the moth <i>Manduca sexta</i> , influences the fate of identifiable pattern elements within the CNS	621
Kobatake, E. and Sugiyama, T. Genetic analysis of developmental mechanisms in hydra. XIX. Stimulation of regeneration by injury in the regeneration-deficient mutant strain, reg-16	521	Ng, S.-C., Perkins, L. A., Conboy, G., Perrimon, N. and Fishman, M. C. A <i>Drosophila</i> gene expressed in the embryonic CNS shares one conserved domain with the mammalian GAP-43	629
Pituello, F., Deruntz, P., Pradayrol, L. and Duprat, A.-M. Peptidergic properties expressed <i>in vitro</i> by embryonic neuroblasts after neural induction	529	Wedden, S. E., Pang, K. and Eichele, G. Expression pattern of homeobox-containing genes during chick embryogenesis	639
Norris, W. E., Stern, C. D. and Keynes, R. J. Molecular differences between the rostral and caudal halves of the sclerotome in the chick embryo	541	Whyte, A. and Stewart, H. J. Expression of the proto-oncogene <i>fos</i> (<i>c-fos</i>) by preimplantation blastocysts of the pig	651
Cooke, J., Symes, K. and Smith, E. J. Potentiation by the lithium ion of morphogenetic responses to a <i>Xenopus</i> inducing factor	549	RAPID PUBLICATION Browne, L. H., Sadeghi, H., Blumberg, D., Williams, K. L. and Klein, C. Re-expression of 117 antigen, a cell surface glycoprotein of aggregating cells, during terminal differentiation of <i>Dictyostelium discoideum</i> prespore cells	657
Kwok, F. W. K. and Ng, S. F. 5-azacytidine affects the programming of expression of the somatic nucleus of <i>Paramecium</i>	559	ESSAY IN DEVELOPMENT Smith, J. C. Mesoderm induction and mesoderm-inducing factors in early amphibian development	665
Wang, M. and Schaap, P. Ammonia depletion and DIF trigger stalk cell differentiation in intact <i>Dictyostelium discoideum</i> slugs	569	CONTRIBUTED PAPERS Jaffredo, T., Vandenbunder, B. and Dieterlen-Lièvre, F. <i>In situ</i> study of <i>c-myc</i> protein expression during avian development	679
Nomura, S., Hogan, B. L. M., Wills, A. J., Heath, J. K. and Edwards, D. R. Developmental expression of tissue inhibitor of metalloproteinase (TIMP) RNA	575	Peterson, C. A., Phillips, W. H. and Grainger, R. M. Region-specific deposition of dermal proteins between dermis and epidermis during induction of chick feather and scale rudiments	697
Holder, N. Organization of connective tissue patterns by dermal fibroblasts in the regenerating axolotl limb	585	Kothary, R., Clapoff, S., Darling, S., Perry, M. D., Moran, L. A. and Rossant, J. Inducible expression of an <i>hsp68-lacZ</i> hybrid gene in transgenic mice	707
Hart, I. K., Richardson, W. D., Heldin, C.-H., Westermarck, B. and Raff, M. C. PDGF receptors on cells of the oligodendrocyte-type-2 astrocyte (O-2A) cell lineage	595		

Contents

Whittington, P. M.

- The early development of motor axon pathways in the locust embryo: the establishment of the segmental nerves in the thoracic ganglia 715

Gower, H. J., Moore, S. E., Dickson, G.,

- Elsom, V. L., Nayak, R. and Walsh, F. S.
Cloning and characterization of a myoblast cell surface antigen defined by 24.1D5 monoclonal antibody 723

Beddington, R. S. P. and Robertson, E. J.

- An assessment of the developmental potential of embryonic stem cells in the midgestation mouse embryo 733

Tix, S., Minden, J. S. and Technau, G. M.

- Pre-existing neuronal pathways in the developing optic lobes of *Drosophila* 739

Nagajski, D. J., Guthrie, S. C., Ford, C. C. and Warner, A. E.

- The correlation between patterns of dye transfer through gap junctions and future developmental fate in *Xenopus*: the consequences of u.v. irradiation and lithium treatment 747

Kay, R. R.

- Evidence that elevated intracellular cyclic AMP triggers spore maturation in *Dictyostelium* 753

Lawrence, P. A. and Johnston, P.

- Pattern formation in the *Drosophila* embryo: allocation of cells to parasegments by *even-skipped* and *fushi tarazu* 761

Gregg, B. C., Rowe, A., Bricknell, P. M. and Wolpert, L.

- Ectodermal inhibition of cartilage differentiation in micromass culture of chick limb bud mesenchyme in relation to gene expression and cell shape 769

Jamrich, M. and Sato, S.

- Differential gene expression in the anterior neural plate during gastrulation of *Xenopus laevis* 779

Wright, C. V. E., Schnegelsberg, P. and De Robertis, E. M.

- XIHbox 8: a novel *Xenopus* homeo protein restricted to a narrow band of endoderm 787

RAPID PUBLICATIONS

Goodman, S. L., Deutzmann, R.

and Nurcombe, V.

- Locomotory competence and laminin-specific cell surface binding sites are lost during myoblast differentiation 795

Walsh, F. S., Parekh, R. B., Moore, S. E.,

Dickson, G., Barton, C. H., Gower, H. J.,

Dwek, R. A. and Rademacher, T. W.

- Tissue specific O-linked glycosylation of the neural cell adhesion molecule (N-CAM) 803

Tabin, C. J.

- Isolation of potential vertebrate limb-identity genes 813

Sater, A. K. and Jacobson, A. G.

- The specification of heart mesoderm occurs during gastrulation in *Xenopus laevis* 821

- Index of Authors and Titles 831

- Subject Index 835

